

**REMARKS**

**35 U.S.C. § 112:**

Claims 1-13 are rejected under 35 U.S.C. § 112, second paragraph. In regard to claim 9, the Examiner asserts that the term “substantially” is a relative term rendering this claim indefinite. To address the Examiner’s concern, Applicant deletes the phrase “substantially.”

The Examiner asserts that claims 2, 4, 6, 10-11 and 13 are not clear. Claims 2, 4 and 6 define that the variation of intensity of the electric field has a particular amount of maximums on a radius of the enclosure. Applicant amends claims 2, 4 and 6 to further define their physical features by reciting that the enclosure is a predetermined size. This feature creates a physical limitation not required by claim 1. As one skilled in the art of electrical fields will appreciate, a device can be sized differently to produce a difference in intensity of the electrical fields and change the maximums on the radius. Therefore, claims 2, 4 and 6 further limit claim 1, such that they are definite. Applicant also amends claims 10, 11 and 13 to address the Examiner’s concern by further reciting physical features. Accordingly, claims 1-13 are definite such that the rejection thereof under 35 U.S.C. § 112, second paragraph, should be withdrawn.

**35 U.S.C. § 103:**

- Claims 1-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kuehnle et al. (U.S. Patent No. 5,679,412 [hereinafter “Kuehnle”]) in view of Leprince et al., (U.S. Patent No. 5,063,330 [hereinafter “Leprince”]) and Sato et al. (U.S. Patent No. 5,961,776 [hereinafter “Sato”]) or Watanabe et al. (U.S. Patent No. 6,158,383 [hereinafter “Watanabe”]) or Ishii (U.S. Patent No. 6,827,972).
- Claims 1-10 and 12-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Plester (U.S. Patent No. 5,849,366) in view of Leprince, Sato, Watanabe or Ishii.

- Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Plester, in view of Leprince and Sato or Watanabe, or Ishii, and further in view of Kuehnle.
- Claims 1-10 and 12-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Laurent (WO 99/17334) in view of Leprince, Sato, Watanabe or Ishii.
- Claim 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Laurent, in view of Leprince and Sato or Watanabe, or Ishii, and further in view of Kuehnle.

In each of the respective rejections of independent claim 1, Leprince is applied for disclosing a microwave plasma apparatus with an enclosure made of a conductive material (See, col. 2, lines 66-68 of Leprince). Sato, Watanabe and Ishii are applied for each allegedly disclosing a microwave apparatus having axial symmetry with respect to a central axis of the enclosure.

One exemplary difference between the embodiment of present Fig. 1 and the applied teachings of Kuehnle, Plester and Laurent, is the use of a tube, e.g., 16 around the container, e.g., 24, in combination with the enclosure, e.g., 12 which has microwaves delivered therein by the generator, e.g., 14 and wave guide tunnel, e.g., 15. Kuehnle discloses a chamber 52 which surrounds the containers 10. However, a combination of a tube and an enclosure is not disclosed in Kuehnle. Likewise, Plester discloses a vacuum sleeve 11, but not the combination of a tube and an enclosure. Further, although Laurent discloses what may be argued as a tube (i.e., 3.1), it does not disclose an enclosure which communicates with a generator. Instead, the microwave generator 4 of Laurent directly communicates to an inside area of the cylindrical part 3.1.

Claim 1 defines a tube that surrounds the container and also defines the waveguide tunnel as being outside of the tube, to provide a unique combination of elements not provided by the applied art. In particular, the respective applications of Kuehnle, Plester and Laurent fail to teach

or suggest the features of claim 1. The additional application of Leprince (for teaching a conductive material), Sato, Watanabe and Ishii also fail to make up for the deficient teachings of the primary references (i.e., Kuehnle, Plester and Laurent). Thus, Applicant respectfully submits that the various combinations of references fail to teach or suggest each feature recited in claim 1, such that the rejections thereof under 35 U.S.C. § 103(a) should be withdrawn. Dependent claims 2-10, 12 and 13 should also be allowable at least due to their respective dependencies on claim 1.

Regarding the rejections of dependent claim 11, Applicant submits that the combined references fail to teach or suggest the features of claim 1, such that claim 11 should be patentable at least by virtue of its dependency upon claim 1. The individual rejections of claim 11 do not set forth any additional references which were not previously discussed above.

**NEW CLAIMS:**

Applicant adds new claims 14-19 to further define the invention. The new claims are deemed patentable over the art at least by virtue of their respective dependencies upon claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Patent Application No. 10/501,718

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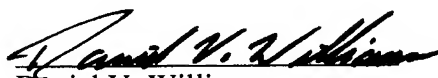
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